

Guest lecture

BritInn

Academic Network Britain-Innsbruck

Dr. Arthur Broadbent

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Effects of snow cover changes and shrub encroachment on soil communities and processes in alpine grassland

Climate change is disproportionately impacting mountain ecosystems, leading to large reductions in winter snow cover, earlier spring snowmelt and widespread shrub expansion into alpine grasslands. We use complimentary field experiments to tease apart the effects that these consequences of climate warming have on soil microbial communities and the important ecological functions they perform. Our experiments are based in the Austrian Alps, but they have global relevance given that mountain ranges across the world are facing a similar set of challenges. Our findings suggest that changing winter snow conditions have cross-seasonal impacts on soil microbial community composition, functioning and biogeochemical pools and fluxes. However, shifts in vegetation can modulate belowground effects of future alpine climate change. This lecture will elaborate on these findings and their implications for mountain ecosystems.

November 15, 2021 at 17:00

Online presentation

(Send an e-mail to ecology@uibk.ac.at for an invitation link)



Dr Broadbent's research focuses on how multiple global change factors affect soil microbial communities, plant traits and biogeochemical cycles.